

Name: _____

p1103: Factoring with box when $a = \text{prime}$ (v20)

Example

Use the box to factor $2x^2 - 9x - 18$.

Guess and check, based on factor pairs of -18 , until you find the pair that results in a linear coefficient of -9 after combining like terms.

| | | |
|----|--------|--------|
| * | x | -6 |
| 2x | $2x^2$ | $-12x$ |
| 3 | 3x | -18 |

$2x^2 - 12x + 3x - 18$

Combine like terms.

$2x^2 - 9x - 18$

ANSWER: $(2x + 3)(x - 6)$

Question 1

Use the box to factor $5x^2 + 43x + 24$.

| | | |
|----|--------|----|
| * | x | |
| 5x | $5x^2$ | |
| | | 24 |

ANSWER:

Question 2Use the box to factor $3x^2 + 11x - 42$.

| | | |
|----|--------|-----|
| * | x | |
| 3x | $3x^2$ | |
| | | -42 |

ANSWER:

Question 3Use the box to factor $7x^2 - 64x + 64$.

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ANSWER: